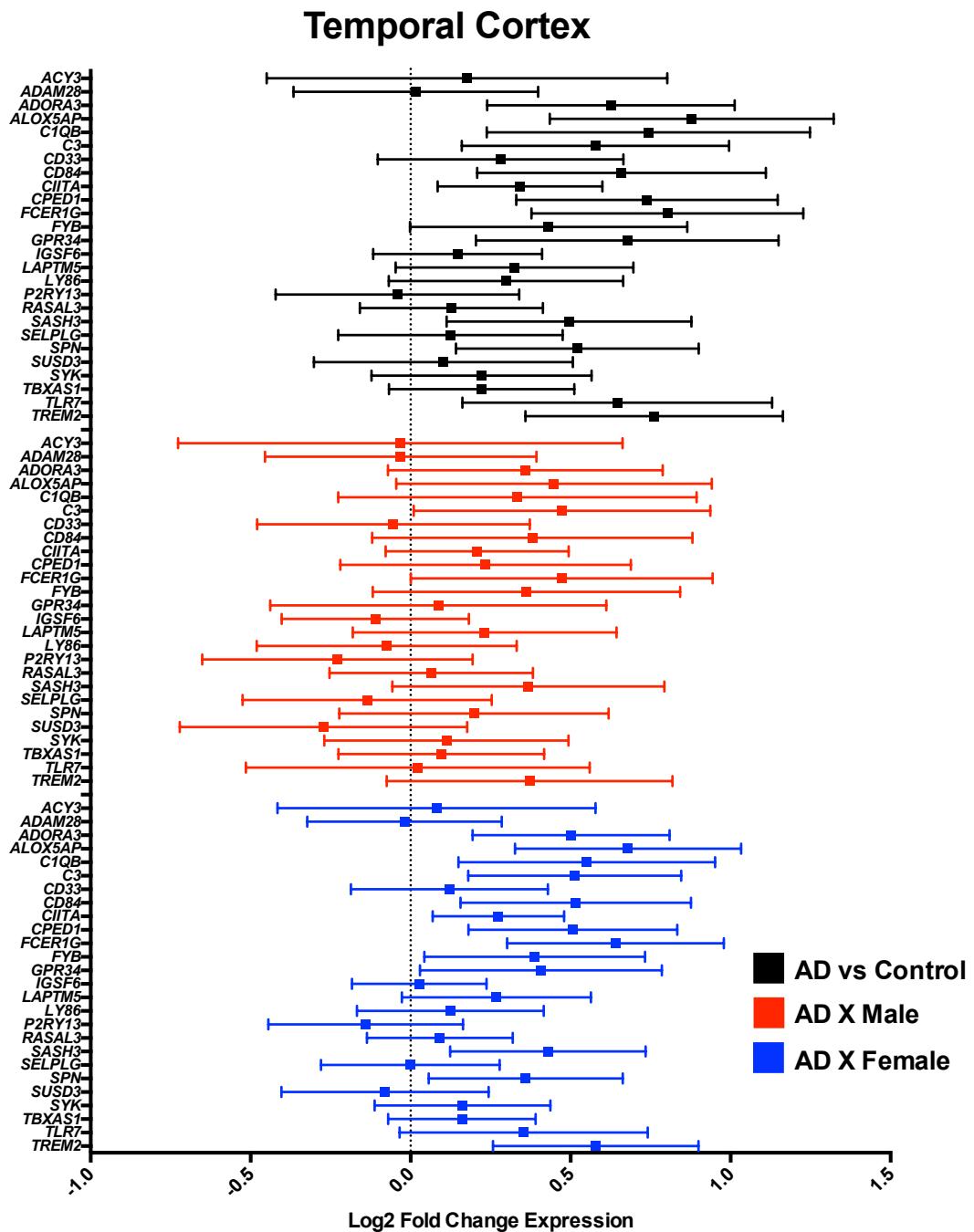
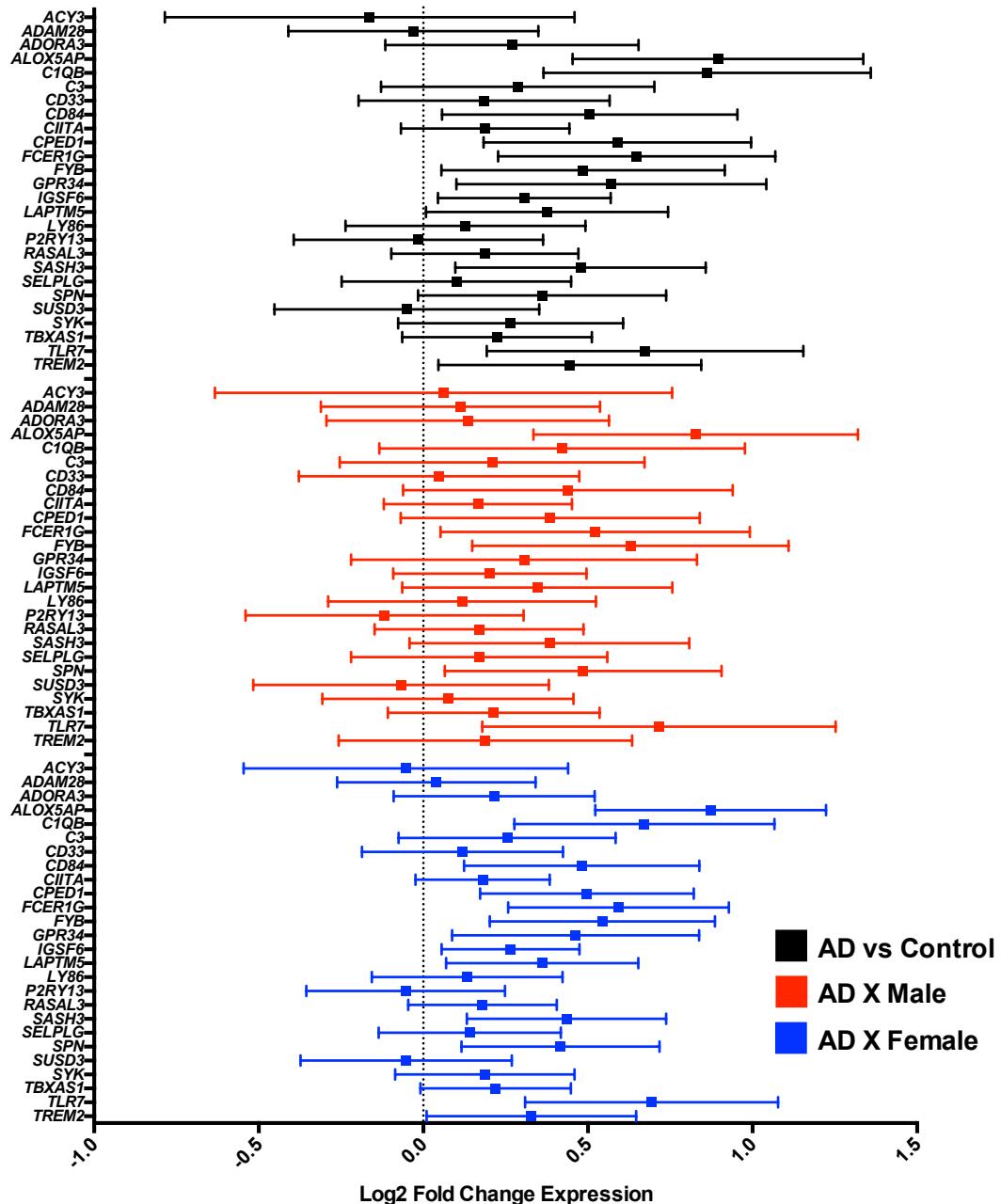


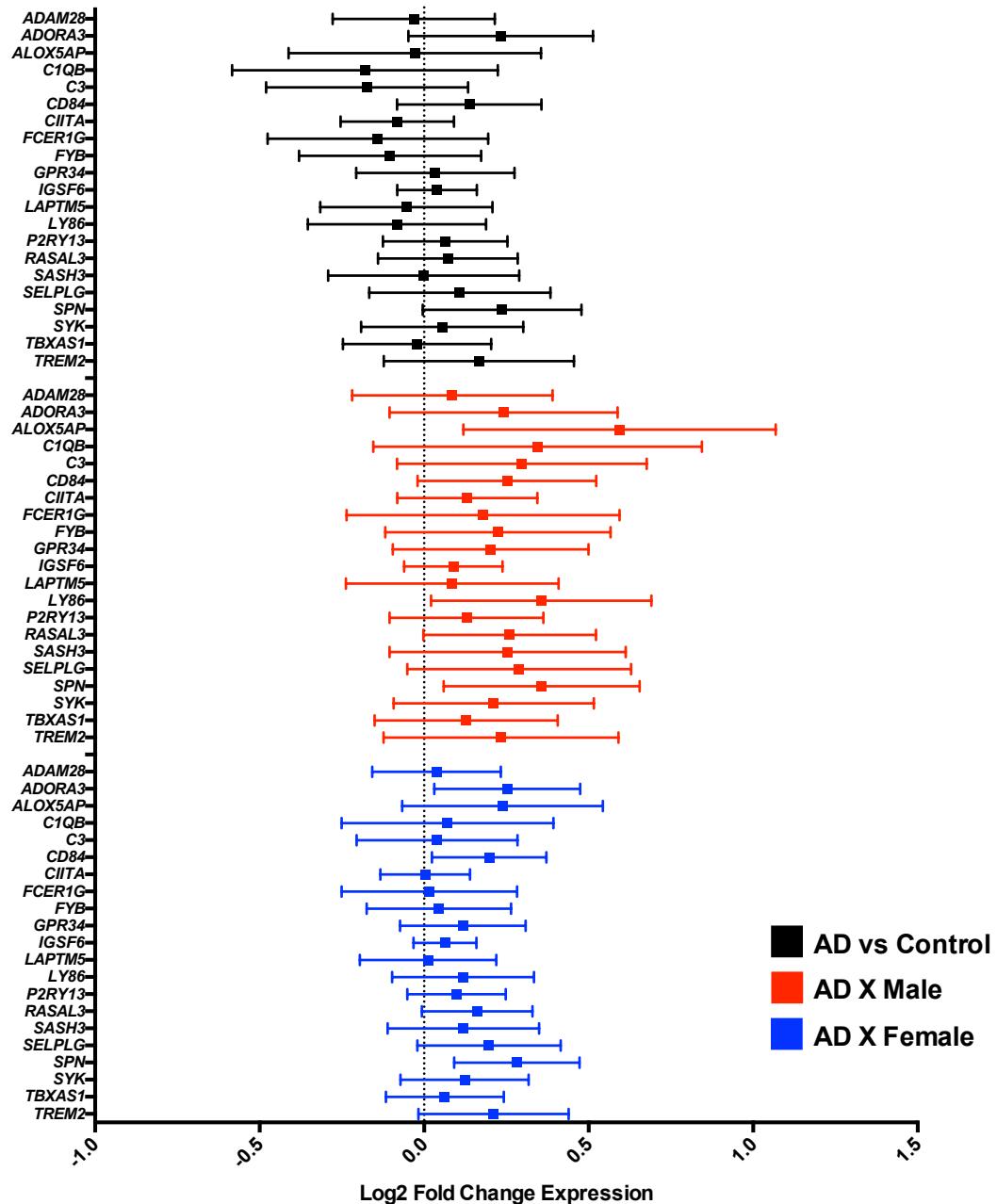
Figure S3. Microglial gene expression compared by sex in human AD cases and controls



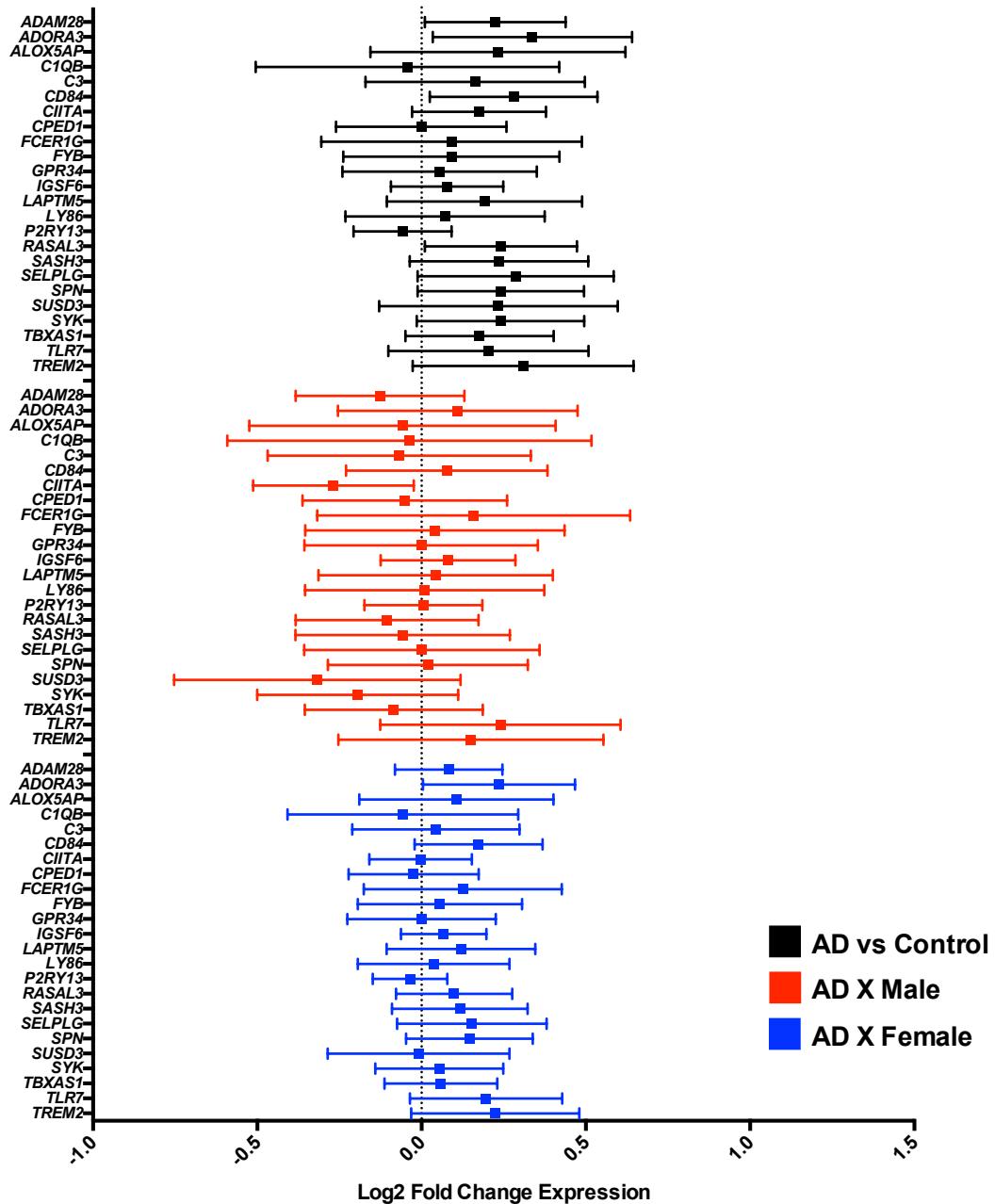
Cerebellum



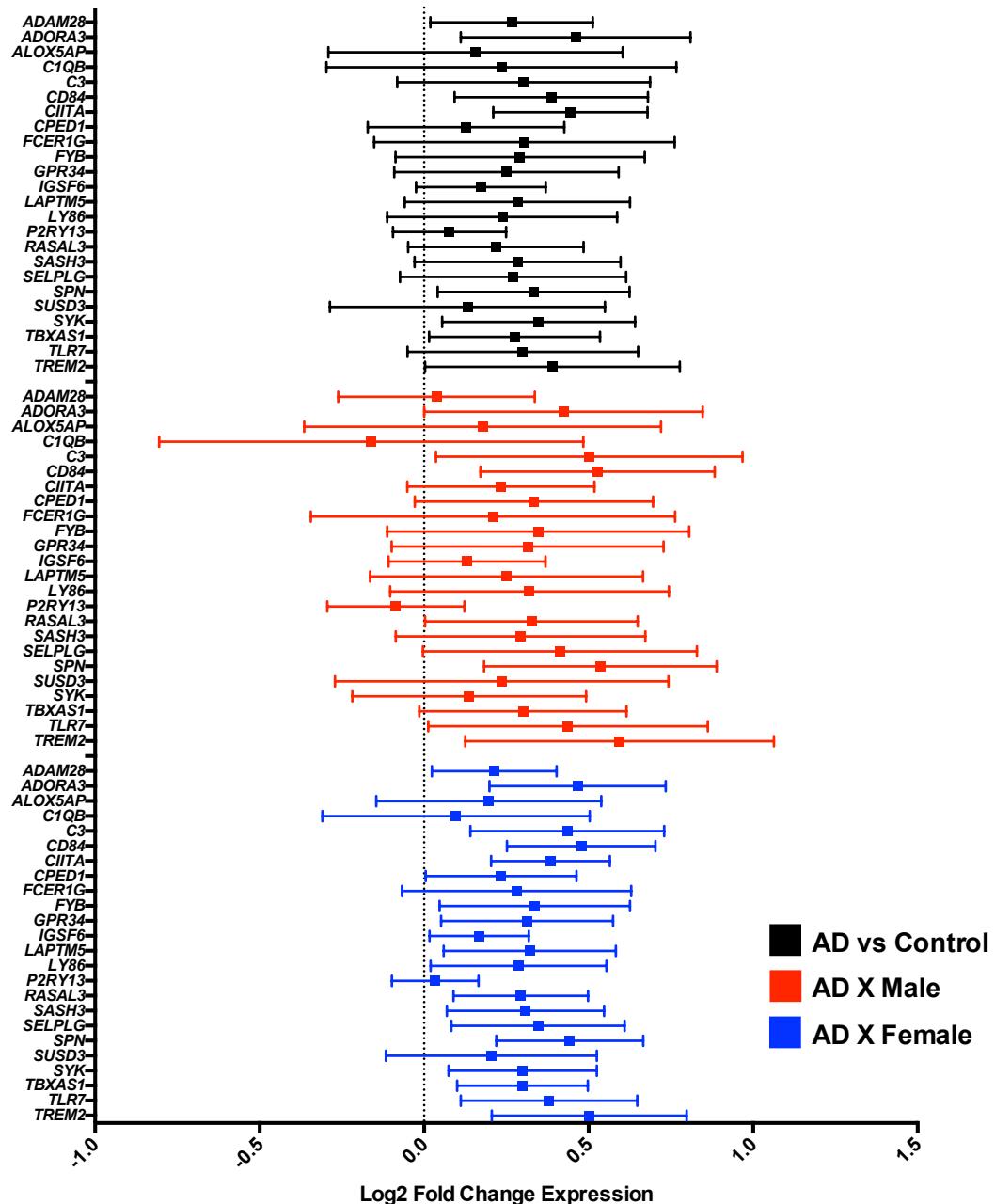
DLPFC



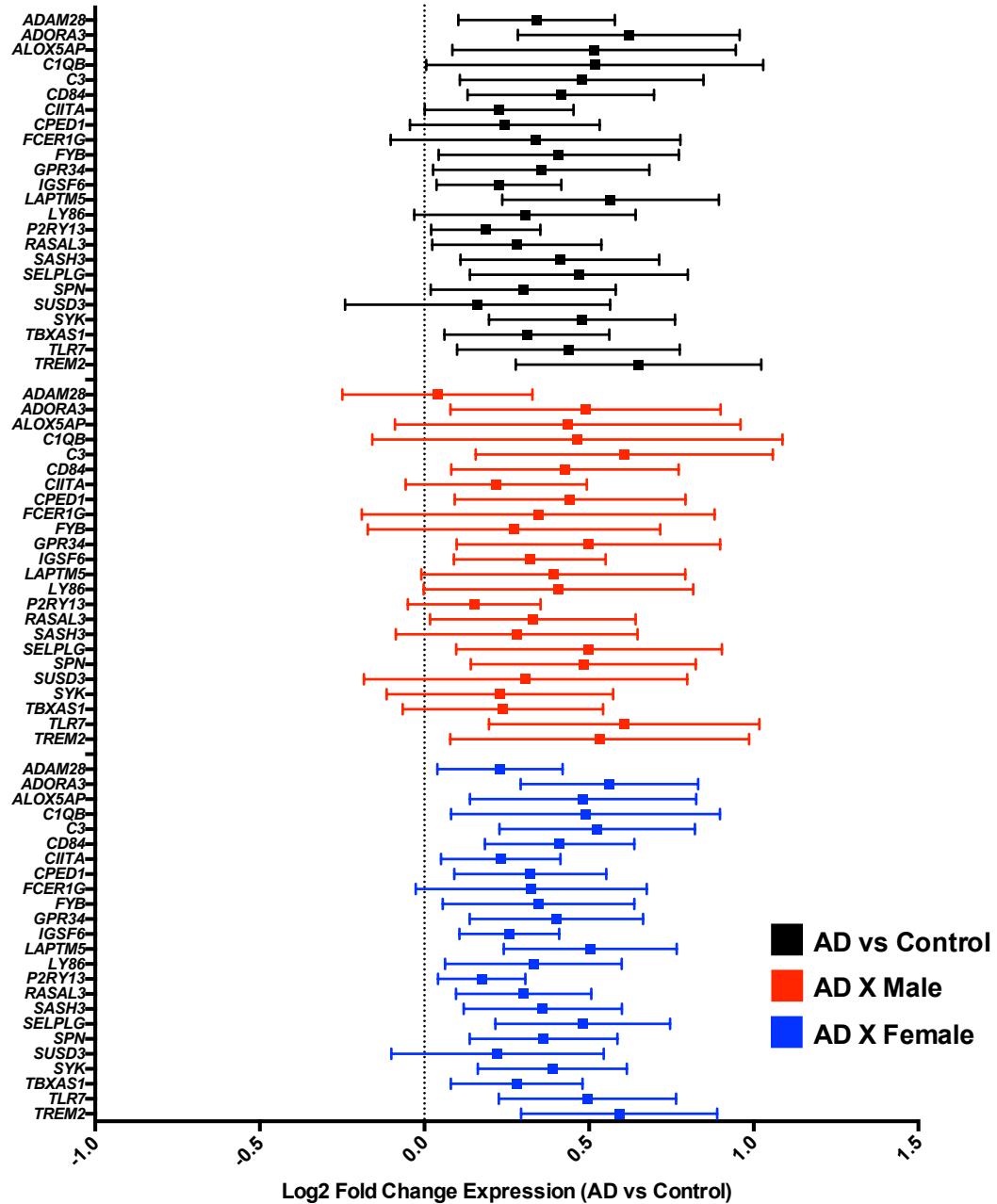
Frontal Pole



Parahippocampal Gyrus



Superior Temporal Gyrus



Inferior Frontal Gyrus

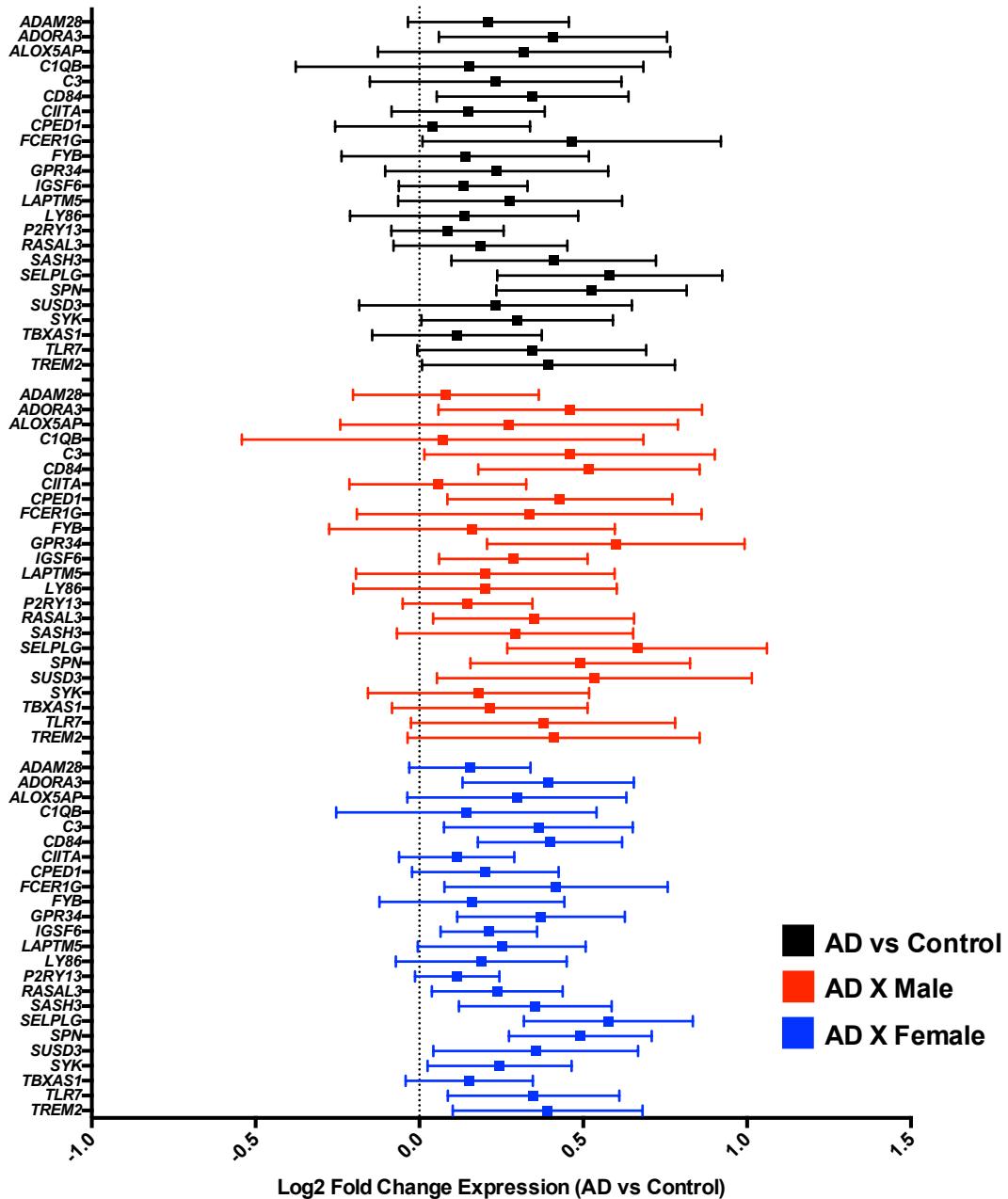


Figure S3. To explore the potential relationships between microglial genes and sex, we analyzed microglial gene expression testing for a statistical interaction between Alzheimer's disease diagnosis and sex (either male or female; e.g. Gene expression =

Diagnosis x Sex + covariates + (1|Donor)). The results shown in black at the top of each plot were previously presented in Figure 4 and Supplementary Figure 2 and are provided so the main effect of diagnosis can be compared to the interaction effect between sex and diagnosis. The results of these analyses are shown in red for males and blue for females. Overall, there was slightly higher number of significant results for the diagnosis x female interaction than the diagnosis x male interaction (see temporal cortex, parahippocampal gyrus, and superior temporal gyrus), but this effect appears subtle. For the presented analyses, we evaluated the entire gene set when possible, omitting specific microglial genes only when expression data was not available.